Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for processing an object with a processing fluid, comprising:

a processing chamber formed within a chamber housing formed of substantially planar walls having a thickness; and

a fluid circulation loop integrally formed of elongated apertures formed within the thickness and substantially parallel to the walls of ~~in~~ the chamber housing.

2. (Original) The apparatus of claim 1 wherein the fluid circulation loop comprises flow generating means for receiving a fluid and generating a high-velocity fluid stream.

3. (Original) The apparatus of claim 1 further comprising back-flow blocking means adapted and positioned for allowing the processing fluid to flow unidirectionally from within the processing chamber to the flow generating means.

4. (Original) The apparatus of claim 3 further comprising filtering means for filtering the processing fluid.

5. (Original) The apparatus of claim 1 further comprising fluid supply means for supplying a fluid to the processing chamber.

6. (Original) The apparatus of claim 1 wherein the object is a semiconductor wafer for forming integrated circuits.

7. (Original) The apparatus of claim 1 further comprising means for recirculating the processing fluid within the processing chamber for a period of time to remove a contaminant from a surface of the object.

8. (Original) The apparatus of claim 1 further comprising means for introducing a

processing chemistry into the fluid circulation loop.

9. (Original) The apparatus of claim 1 further comprising means for maintaining a temperature of at least one of a fluid within the processing chamber and a fluid within the fluid circulation loop.

10. (Currently Amended) An apparatus for processing an object with a processing fluid, comprising:

a. a chamber housing <u>formed of substantially planar walls having a thickness</u> defining a processing chamber, the chamber housing comprising:

i. fluid inlet means and fluid outlet means in communication with the processing chamber;

ii. a fluid circulation loop integrally formed <u>of elongated apertures formed within the thickness and substantially parallel to the walls of</u> ~~in~~ the chamber housing, the fluid circulation loop coupling the fluid inlet means and the fluid outlet means; and

iii. flow generating means for receiving a fluid and generating a high-velocity fluid, the flow generating means coupled to the fluid circulation loop; and

b. fluid supply means for supplying a processing fluid to the processing chamber including at least one fluid source.

11. (Original) The apparatus of claim 10 wherein the fluid inlet means is adapted to direct the high- velocity fluid stream over the object.

12. (Original) The apparatus of claim 11 wherein the fluid inlet means is further adapted to allow substantially all the high-velocity fluid stream to pass over the object within a predetermined distance from a surface of the object.

13. (Original) The apparatus of claim 12 further comprising a manifold having a plurality of fluid outlets for directing the high-velocity fluid stream over the object.

14. (Original) The apparatus of claim 13 wherein the manifold comprises an injection ring.

15. (Original) The apparatus of claim 10 wherein the flow generating means is configured to

receive a fluid from at least one of the fluid supply means and the fluid outlet means.

16. (Original) The apparatus of claim 10 further comprising back-flow blocking means adapted and positioned for allowing the processing fluid to flow unidirectionally from within the processing chamber to the flow generating means.

17. (Original) The apparatus of claim 16 wherein the back-flow blocking means comprises at least one check valve.

18. (Original) The apparatus of claim 10 wherein the object is a semiconductor wafer for forming integrated circuits.

19. (Original) The apparatus of claim 10 further comprising means for recirculating the processing fluid within the processing chamber for a period of time to remove a contaminant from a surface of the object.

20. (Original) The apparatus of claim 10 wherein the fluid comprises at least one of gaseous, liquid, supercritical and near-supercritical carbon dioxide.

21. (Original) The apparatus of claim 20 wherein at least one of solvents, co-solvents, chemistries, and surfactants are contained in the carbon dioxide.

22. (Original) The apparatus of claim 10 further comprising filtering means for filtering the processing fluid.

23. (Original) The apparatus of claim 22 wherein the filtering means is configured to reduce a contaminant level of the processing fluid.

24. (Original) The apparatus of claim 23 wherein the filtering means is further configured to have at least one of a course filter and a fine filter.

25. (Original) The apparatus of claim 10 further comprising fluid supply means for supplying a fluid from the fluid source to the processing chamber.

26. (Currently Amended) A semiconductor wafer processing apparatus, comprising:

a processing chamber formed within a chamber housing formed of substantially planar walls having a thickness, the chamber housing having a fluid inlet and a fluid outlet in communication with the processing chamber;

a first fluid communication line integrally formed within the thickness and substantially parallel to the walls of ~~in~~ the chamber housing and coupling the fluid outlet and the fluid inlet, the first fluid communication line including a pump for generating a high-velocity fluid stream; and

filtering means for filtering the processing fluid.

27. (Original) The semiconductor wafer processing apparatus of claim 26 wherein the fluid inlet is adapted to direct the processing fluid over the object.

28. (Original) The semiconductor wafer processing apparatus of claim 26 wherein the fluid communication line includes a back-flow blocking means adapted for allowing a processing fluid to flow unidirectionally from the fluid outlet to the fluid inlet.

29. (Original) The semiconductor wafer processing apparatus of claim 28 wherein the back-flow blocking means comprises at least one check valve.

30. (Original) The semiconductor wafer processing apparatus of claim 26 wherein the filtering means is coupled to the fluid communication line.

31. (Original) The semiconductor wafer processing apparatus of claim 26 wherein the filtering means is configured to reduce a contaminant level of the processing fluid.

32. (Original) The semiconductor wafer processing apparatus of claim 31 wherein the filtering means is further configured to have at least one of a course filter and a fine filter.

33. (Original) The semiconductor wafer processing apparatus of claim 26 further comprising a second fluid communication line integrally formed in the chamber housing and coupling the fluid outlet and the fluid inlet, the second fluid communication line including a pump for generating a high-velocity fluid stream.

34. (Original) The semiconductor wafer processing apparatus of claim 26 further comprising fluid supply means for supplying a processing fluid to the processing chamber including at least one fluid source.

35. (Withdrawn) A method of processing an object with a processing fluid, comprising the steps of:

a. circulating a fluid stream within a fluid circulation loop integrally formed in a chamber housing; and

b. generating a high-velocity fluid stream within a processing chamber.

36. (Withdrawn) A method of removing at least a portion of a residue from a surface of a semiconductor wafer with a processing fluid, comprising the steps of:

a. increasing a frictional force of the processing fluid over the surface of the semiconductor wafer by generating a high-velocity processing fluid stream; and

b. circulating the processing fluid within a fluid circulation loop integrally formed in a chamber housing.

37. (Withdrawn) A method of making a supercritical processing apparatus, comprising the steps of:

a. forming a processing chamber within a chamber housing; and

b. integrally forming at least one fluid circulation loop in the chamber housing for use in generating a high-velocity fluid stream within the processing chamber.

38. (Withdrawn) The method of claim 37 further comprising the step of providing a filtering means for filtering a fluid to reduce a contaminant level of the fluid.